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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/772,226

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1505-0169

2204

7590

03/15/2006

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EXAMINER

MAI, ANH T

ART UNIT

PAPER NUMBER

2832

DATE MAILED: 03/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/772,226

Applicant(s)

TATE ET AL.

Examiner

Anh T. Mai

Art Unit

2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

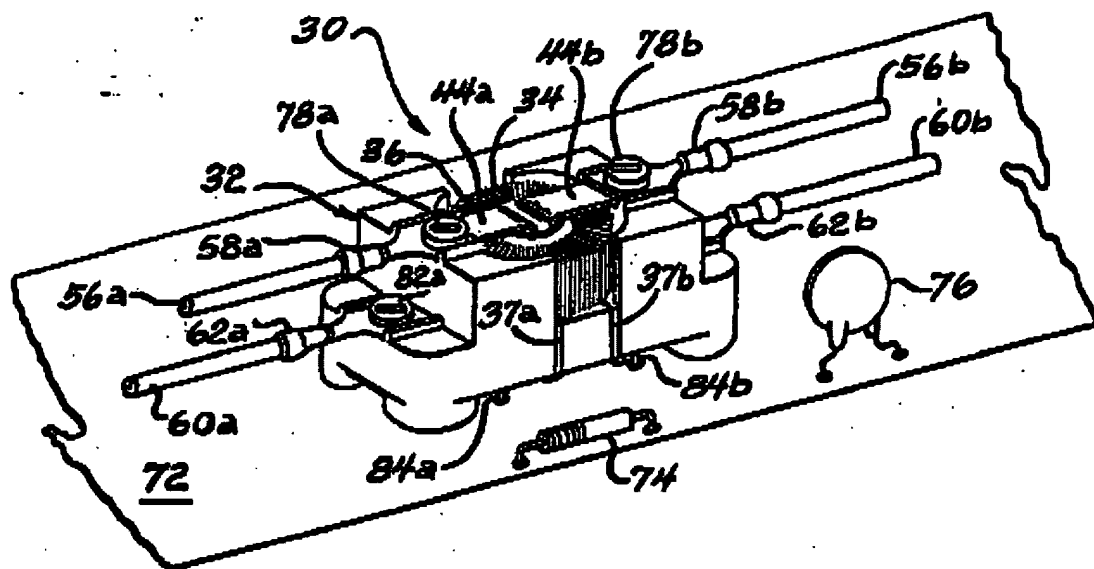
A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 13-14, 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Brodzik et al. [4748405].

Brodzik discloses:

- a current transformer having a core 36, first coil 34 in flux inducing relationship with the core; the core including an opening defining a void [center of the core];
- first current coil 44a passing thru the void;
- a second current coil 44b passing through the void;
- an insulation member 40 [up-raised center portion of the mounting block 32 of durable plastic material] disposed between the first current coil and second current coil, the insulation member structurally separate from the first current coil to the second current coil [see figure 3; col 3, lines 7-25].
- The insulation member extend thru the void, and has a width exceeding a width of second coil;
- The conductors are un-insulated conductor passing the void;
- The first and second current coils are un-insulated metal bars [figures 2-3].



includes a pair of facing curvilinear slots 38a and 38b positioned on an upper portion thereof and forming a generally circular recessed portion therein. The pair of curvilinear slots 38a, 38b is adapted to receive and support the combination of a donut-shaped ferrite core 36 and a toroidal coil 34 wound around the ferrite core. With the combination toroidal coil/ferrite core positioned within the curvilinear slots 38a, 38b in the upper portion of the mounting/connecting block 32, an upraised center portion 40 of the block is positioned within the ferrite core's aperture. Positioned within the upraised center portion 40 of the mounting/connecting block 32 and extending downward to the lower surface thereof are a pair of slots 42a, 42b. Each of the slots 42a, 42b is adapted to receive a respective conductor 44a, 44b which are each in the form of a metal strip or bus bar in a preferred embodiment. Each of the metal strip conductors 44a, 44b is initially L-shaped and includes respective pairs of apertures 50a, 50b and 52a, 52b positioned on respective ends thereof. With the generally vertically oriented portion of each of the metal strip conductors 44a, 44b positioned within one of the mounting/connecting block slots 42a, 42b, the generally horizontally oriented portion of each of the metal strip conductors is positioned parallel and immediately adjacent to the lower surface of the mounting/connecting block 32.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 15-16, 18, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brodzik et al. [4748405] in view of Bolam.

As in claims 15-16 and 20, Brodzik discloses the invention as claimed as cited above except for the current transformer being supported by a utility meter housing. Bolam discloses a housing of a utility meter base plate 16 and back over plate 18 [figures 1-2] to provide arrangement of the current transformer for the electric utility meter. It would have been obvious to those ordinary skilled in the art may readily incorporate the features of the present invention in electric utility meters of standard configurations [col 3, lines 35-40].

As in claim 18, Brodzik discloses the invention as claimed as cited above except for the conductor comprises copper bar. Bolam discloses current coil 33 being conductive metal as copper having uniformed thickness and width [col 5, lines 35-37]. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use copper as taught by Bolam for conductive material as disclosed by Brodik. The motivation would have been to utilized alternative materials that are available to perform the mechanical/electrical requirement for the device.

4. Claims 1-12, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brodzik et al. in view of Baumann [6507260].

Brodzik discloses:

- a current transformer having a core 36, first coil 34 in flux inducing relationship with the core; the core including an opening defining a void [center of the core];

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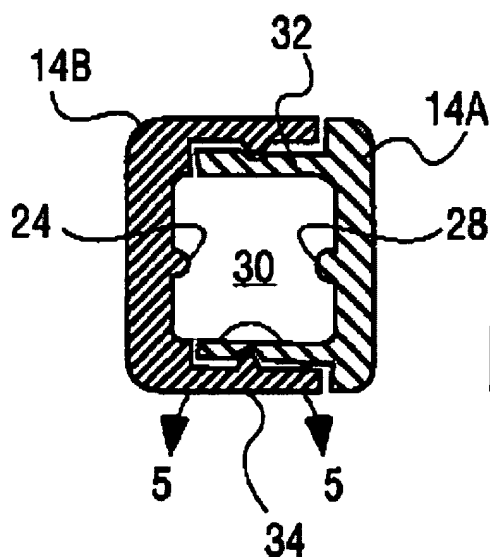
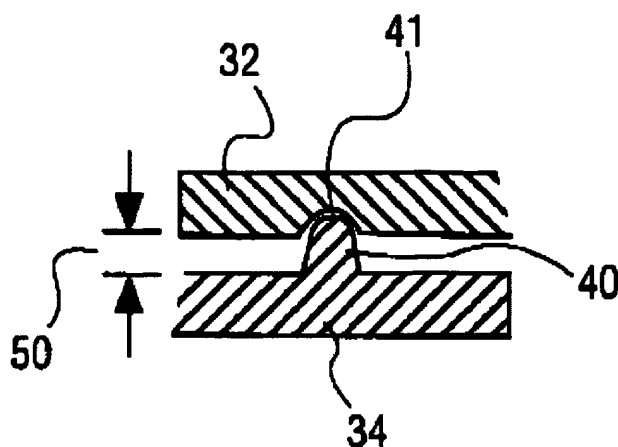
- first current coil 44a passing thru the void;
- a second current coil 44b passing through the void [see figures 2-3].

Brodzik discloses the invention as claimed as cited above except for an insulation cup comprising first part and second part configured to mechanically couple the second part and the first part.

Baumann discloses insulating casing of annular cup shape having first part 14a and second part 14b mechanically coupled via tabs 21 expanding from bottom surface of cup 14a and mates with tab on the other cup to encapsulate the winding 12 on core 10 [figures 1-2A.B]. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have two-part insulation cup as taught by Baumann to cover the transformer as taught by Brodzik. The motivation would have been to provide reduction in capacitance between the first winding and the second winding [abstract]. Therefore, it would have been obvious to combine Baumann with Brodzik.

With respect to claims 5-7, Baumann discloses first and second annular cup shape having rib 40 disposed about the inside surface of wall 34 of cup 14b and engages a groove 41 disposed about the outside wall 32 of cup 14a which provides snap fit features as shown in figures 4-5.

Additionally, a rib 40 is disposed about the inside surface of wall 34 of the cup 14b and engages a groove 41 disposed about the outside surface of wall 32 of the cup 14a. The rib 40 is taller than the depth of the groove 41 leaving an air gap 50. This provides a partial air dielectric along the sides of the core when used in conjunction with the ribs 24 and 28. In one embodiment the air gap 50 is approximately 2 mm.

FIG. 5**FIG. 4**

With respect to claims 8-10, the claims are rejected for reciting method/step derived from the structure of claims 1-4 which are rejected above.

With respect to claims 11-12, the claims are rejected for reciting method/step derived from the structure of claims 5-7 which are rejected above.

With respect to claim 19, Baumann discloses the insulation cup having two annular cup shaped configured to mechanically couple to encapsulate the transformer as shown in figure 1.

Response to Arguments

5. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh T. Mai whose telephone number is 571-272-1995. The examiner can normally be reached on 5/4/9 Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


ANH MAI
PRIMARY EXAMINER